OBJECTIVES: The objective of this workshop is to describe the approach used in developing a comprehensive, multi-national breast cancer treatment model. This disease model was developed for six international markets—U.S., U.K., Germany, Japan, France, and Italy—and includes over 70 treatment comparators used in 24 unique decision trees. The model's flexibility, with nearly 350 variable cost components related to the diagnosis, treatment, and outcomes of breast cancer, allows for an examination of the effect of varying cost and probability scenarios to reflect a multitude of country-specific treatment practices and international practice variations.

PARTICIPANTS WHO WOULD BENEFIT: Researchers involved in the development of international clinical and economic decision analysis models.

A disease treatment model can be a useful tool for comprehensively evaluating the clinical and economic aspects of a specific disease. This workshop will explain the steps involved in building the model, including: Use of accepted clinical guidelines to develop treatment pathways and the use of expert-opinion to reflect variations in actual current practice Probability data collection for over 144 million decision nodes Cost data collection for all treatments and cost components. Computer software used to program the model. Interaction of clinical endpoint, cost, and clinical pathway modules. Type of results generated (e.g., database queries, sequence queries, cost-effectiveness analysis). Limitations and possible applications to other diseases Participants in this workshop will have an opportunity to suggest customized queries to be answered by the model.

WW5

CREATIVE APPROACHES TO MODELING LIFE EXPECTANCY GAINS FOR ECONOMIC EVALUATION USING PUBLISHED DATA

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OBJECTIVES: Cost-effectiveness analysis requires estimating gains in life expectancy from effective treatments. Survival is not an endpoint in many clinical trials, because of limited follow-up intervals or statistical power. If databases linking survival to the surrogate markers used in the trials are not available, fragmentary published data based on follow-up studies may suffice. This workshop illustrates methods for using limited published data to estimate life expectancy gains. Participants will be encouraged to share their own experiences in modeling life expectancy.

PARTICIPANTS WHO WOULD BENEFIT: Analysts who want to estimate cost-effectiveness based on limited published data.

This workshop illustrates methods for using limited published data to estimate life expectancy gains. The example concerns AIDS wasting, in which patients with HIV infection experience significant weight loss. Treatments such as human growth hormone (HGH) and anabolic steroids have been found effective in retarding weight loss or even restoring body weight in patients with AIDS wasting. Published survival curves stratified by weight change from baseline (in ranges such as −10% to −5%) and CD4 cell count were found in the literature. A clinical trial of HGH reported means and standard deviations of weight change from baseline with drug and with placebo. Our task was to use these data to estimate the life expectancy gain with HGH in patients stratified by CD4 cell count. The presenters will demonstrate the following analytic steps: (1) estimating probability distributions of weight change from the clinical trial and using these to estimate the probability that patients would experience each range of weight change; (2) estimating areas under the published survival curves to estimate truncated life expectancies by range of weight change; (3) using the DEALE method to extrapolate survival and life expectancy beyond the trial follow-up period; (4) combining steps (1)-(3) to estimate the gain in life expectancy attributable to treatment; and (5) applying discounting to the survival analysis and life expectancy calculations. As with all life expectancy estimates mediated by surrogate markers, there is no "proof" that weight change caused by treatment will translate into life expectancy gains. In the absence of direct evidence of a survival benefit, however, these methods can be used to estimate potential life expectancy gains.

WW6

CONDUCTING COST-BENEFIT AND COST-UTILITY ANALYSES: A CONJOINT ANALYSIS APPROACH

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OBJECTIVES: The objective of this workshop will be to develop an understanding of conjoint analysis methodology, and how it can be used to conduct cost-utility analysis and cost-benefit analysis by capturing patient preferences.

PARTICIPANTS WHO WOULD BENEFIT: Analysts involved in the conduct of pharmacoeconomic studies, particularly those interested in the patient's perspective.

Cost-utility analysis (CUA) and cost-benefit analysis (CBA) are alternate analytical frameworks that can be used to evaluate health interventions. CUA uses a non-monetary metric, such as quality-adjusted life years (QALYs), to value health benefits. In CBA, both costs and benefits are measured in monetary terms. Conjoint analysis can be used to estimate the benefits of an intervention in either monetary or non-monetary terms and can be used in both CUA and CBA. In this workshop, we